

REMARKS

Claims 22-23, 45, 50-52, have been canceled. Claims 1-21, 24-44, 46-49, 53-55 are now pending in this application.

Reconsideration of the application is earnestly requested.

The Office action has rejected claims 1-55 under §102(b) as being anticipated by *Alexander et al. (Alexander)*. Although the Examiner's arguments have been carefully considered, Applicant respectfully traverses these rejections as explained below.

The Present Invention

In one embodiment of the invention, a media content pickup device (such as a video camera connected to a computer) is able to focus on a particular portion of its field of view based upon user input from a presentation window. For example, Figure 4C illustrates a video camera 410 having a field of view 412 and a default focus direction 414. Object A is in focus because it is located in the focus direction, while object B is currently not in focus. Figure 4D illustrates how a user manipulates a cursor 416 within a presentation window 400 to illustrate a new, desired area of interest. Figure 4E illustrates the new area of interest 402' and Figure 4F illustrates the new focus direction 414' of the camera 410. Note that object B is now in focus and that the camera 410 has not moved. In other words, the field of view 412 of the camera does not change but the focus direction does change in order to focus on a different object selected by the user. Paragraph 45 describes that the camera does not move:

It should be noted that the camera 410 has not itself been moved or repositioned towards Object B. Instead, the focus direction utilized by the camera 410 is now directed towards Object B. Consequently, the video pickup by the camera 410 now results in Object B being in focus, whereas Object A would now likely be out of focus and thus blurry or otherwise ill defined. Given the relatively wide field of view 412 of the camera 410, movement of the camera 410 is typically not needed.

Having a camera that does not need to physically move in order to refocus on a particular object in the field of view is advantageous for a user with a camera that physically cannot move or for a camera that does not have sophisticated panning capability. For example, many video cameras for use with a desktop computer are either rigidly mounted on top of the monitor or are

incorporated into the monitor housing itself. These cameras do not have the capability to be automatically moved. Other video cameras may sit on a user's desk, but again, many of these do not have the expensive hardware required to automatically pan back and forth or up and down. This embodiment, therefore, is quite useful with these types of cameras.

In a second embodiment of the invention, directional audio pickup is used to target the audio pickup from a particular audio direction without moving the video camera or the microphones. For example, Figures 4G and 4H illustrate a video camera having two microphones 454 and 456 and a default audio direction 458. Object A is in audio focus because it is located in the audio direction, while object B is currently not in audio focus. Figure 4I illustrates how a user has manipulated a cursor to choose a new audio direction 460. Note that object B is now in audio focus and that the camera 410 and the microphones have not moved. Sound may now be picked up more clearly from Object B. Paragraph 51 describes that the ability to provide audio directions for sound input is achieved using digital signal processing of the audio inputs from the numerous microphones. Paragraphs 61 and 62 also describe focusing (or targeting) the audio input.

The Cited Art Distinguished

By contrast, *Alexander* requires that the video camera physically move in order to change its focus direction and discloses no techniques for targeting audio input from a particular audio direction.

Regarding the requirement that the video camera move, *Alexander* refers to a "field of focus" of the video camera (paragraph 21) that is analogous to the "field of view" of the instant application. Changing the field of focus of the video camera of *Alexander* requires physically moving the camera (*i.e.*, panning the camera or moving it up and down). See, for example, the final sentence of paragraph 21. Paragraph 25 also discusses a "drive" or a "turntable" that physically move the camera. Paragraphs 32 and 37 discusses the camera panning or being positioned in order to respond to the user selection. Further, paragraphs 46, 47, 48, 50 and 51 discuss using coordinates to physically move the camera and to "center" the desired object within the window. In order to center the object the camera must be moved.

Claim 1

Claim 1 is directed toward an electronic device having a media content pickup device (such as a video camera) where the media content pickup device is "arranged to automatically focus on a user-specified region of interest without moving the media content pickup device." By contrast, *Alexander* does not disclose this limitation, and in fact, teaches away from this limitation by requiring that its video camera be physically moved in order to focus on a user-specified region of interest.

Claim 12

Claim 12 is directed toward a computer system having a camera where the camera is "arranged to automatically focus on a determined region of the field of view without moving the camera." By contrast, *Alexander* does not disclose this limitation, and in fact, teaches away from this limitation by requiring that its video camera be physically moved in order to focus on a user-specified region of interest.

Claim 21

Claim 21 is directed toward a method of altering a focus location for camera that includes the step of "causing the camera to focus on the focus region without moving the camera." By contrast, *Alexander* does not disclose this limitation, and in fact, teaches away from this limitation by requiring that its video camera be physically moved in order to focus on a user-specified region of interest.

Claim 44

Claim 44 is directed toward a video conferencing system having two computers. Each computer has a camera and a monitor for viewing video input from the other computer. Once a user of the first computer selects a region of interest from the video input from the second computer, the "second camera then automatically focuses itself so that the second video input is focused on the region of interest without moving said second camera." By contrast, *Alexander* does not disclose this limitation, and in fact, teaches away from this limitation by requiring that its video camera be physically moved in order to focus on a user-specified region of interest.

Claim 49

Claim 49 is directed toward a computer readable medium having code for directing media content input. The computer code receives the media content input from a media content capturing device (such as a video camera). Once a user-specified region of interest is received, the claim requires:

computer program code for processing a media content input into a media content display window based on a user-specified region of interest without moving said media content capturing device, wherein the user-specified region of interest is specified by the user by selecting a region within the media content display window.

Thus, the media content input is processed based upon the specified region of interest without moving the media content capturing device. By contrast, *Alexander* does not disclose this limitation, and in fact, teaches away from this limitation by requiring that its video camera (a media capturing device) be physically moved in order to process input from a user-specified region of interest.

Regarding targeting audio input from a particular audio direction, *Alexander* contains no disclosure on this topic. The Office action cites the word "steer" from paragraph 6, but this is in regards to steering or moving a video camera and not manipulating sound input. Paragraph 7 is also cited. This paragraph refers to "a network of distributed microphones to locate a speaking conference participant within a room." All that is disclosed is that there are multiple microphones in a particular room, thus allowing a microphone closer to the speaker to be used to improve sound quality. There is no discussion of user selection of an audio direction, of processing an audio input to favor a particular audio direction, nor of any digital signal processing technique for performing beam forming or beam steering. By contrast, one embodiment of the present invention has the ability to provide different audio directions for sound input by processing the audio inputs from numerous microphones.

Claim 32

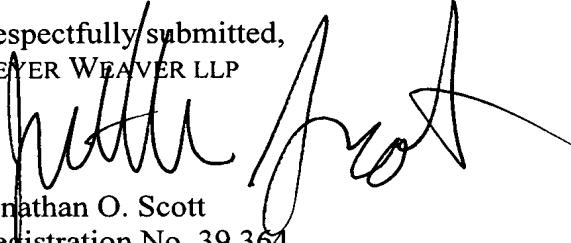
Claim 32 is directed toward a method for processing audio input from numerous microphones. This claim requires not only that the user selects a region of interest, but also that the audio input is processed to target that particular region of interest. Specifically, the claim requires "receiving an indication of a region of interest from a user," and "processing the audio input to target the audio input towards the region of interest."

Alexander, as discussed above, has no disclosure concerning a user selecting a region of interest in order to process audio input; *Alexander* is only concerned with selecting a region in order to move a video camera. Secondly, *Alexander* does not disclose processing audio input in order to target that audio input toward a particular region of interest. *Alexander* only discusses the placing of multiple microphones in a conference room which is not the same as processing audio input in order to target that input toward a particular region.

Since the dependent claims depend from the independent claims, it is respectfully submitted that they are each patentable over the art of record for at least the same reasons as set forth above with respect to the independent claims. Further, each of the dependent claims require additional features that when considered in light of the claimed combination further distinguish the claimed invention from the art of record. For example, claim x specifically requires that

Reconsideration of this application and issuance of a Notice of Allowance at an early date are respectfully requested. If the Examiner believes a telephone conference would in any way expedite prosecution, please do not hesitate to telephone the undersigned at (612) 252-3330.

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